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## 3D Printing Artist is Pulling Strings and Saving Puppets From Extinction

by [Bridget Butler O'Neal](#) | Sep 12, 2014 | [3D Design](#), [3D Printers](#), [3D Printing](#) |

3D printing has been wowing the world with innovations in making items such as prosthetics, casts, and implants. Puppets can benefit from 3D printed parts now also, it turns out. If your puppet needs a new knee or elbow joint, now you can order a la cart, through the growing catalog at [BYOPuppet](#).

BYOPuppet, created by 3D artist [Laurie Berenhaus](#), is an evolving catalog of 3D printed joints and parts designed to help storytellers. Laurie offers resources for 3D printed parts and joints for individuals building and repairing their own puppets. She is building a catalog of universal parts where artists and puppeteers have the tools to 'mash up' their own creations, with "joints" designed to fit standard sized PVC pipes so one has the power to create any size puppet they'd like.



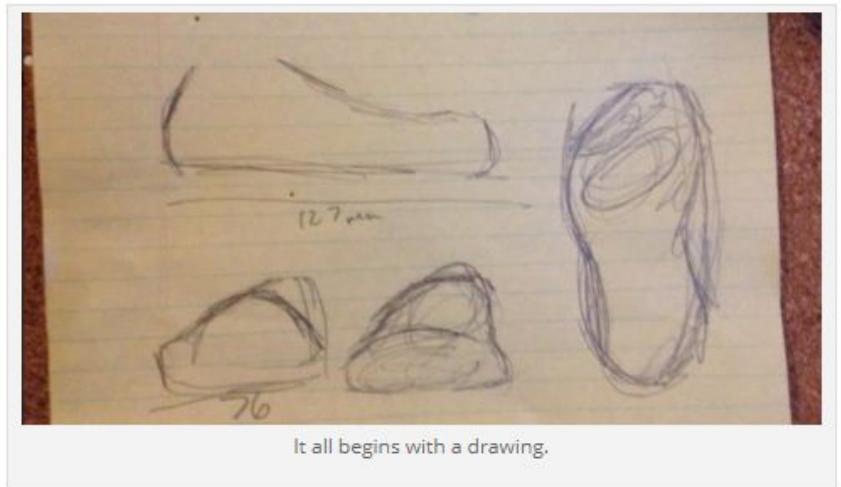
Laurie working with one of her models.

Laurie's objective is twofold in that she wants to continue the rich history of puppet theater, as well as empowering those involved in making their own creations through 3D printing. In creating her inventory for puppet parts, she encourages other artists to share their stories and explain what parts they need. Her goal is to make puppetry more accessible and help fellow storytellers grow.

The BYOPuppet website includes a catalog that allows the customer to pick a part that they wish to purchase and then order through [Shapeways](#), where they are redirected. All of the BYOPuppet parts can also be found on the [Shapeways Shop](#).

*"Before I got into 3D printing, it was always difficult to find parts that would serve the function I'd need. I would take hinges, tubes, plastic spheres, etc. all designed to do something else, and I would have to spend hours altering what already existed so my puppet's elbow can move just like that for a scene," explained Laurie to 3DPrint.com. "That time and energy took me away from rehearsing and from strengthening the story I'm trying to tell in the first place."*

Laurie had been experimenting with 3D printing, but she was truly inspired when she saw [Theo Jansen's](#) stunning 3D printed [Strandbeest](#), skeletons constructed with plastic yellow tubes looking as if they move on their own, "walking on the wind." Discovering that she could have similar interlocking parts printed through services like Shapeways, she was motivated to take on the project in creating a catalog of parts, making puppet joints available to everyone.



Laurie has created a 25-inch tabletop rod puppet that can stand independently, using the 3D printed joints and accessories she has designed (watch for the upcoming video, which she will be sharing soon with the public). She explained that the joy in having such a puppet is that one puppeteer can have an infinite number of articulated characters on stage at a time, and they can go from puppet to puppet.



"I can now realize parts that were near extinction because creating them by hand accurately required parts that are not easily accessible at the local hardware or craft store," says Laurie. "Finally someone doesn't have to wear all the hats to put on a show. You can just print parts as needed with BYOPuppet."

Let us know what you think of Laurie's innovative use of 3D printing, in the [3D printed BYOPuppet forum](#) thread on 3DPB.com. Check out the three videos below for more details on Laurie's work.

<https://www.youtube.com/watch?v=mLIIMifFzU8>

<https://www.youtube.com/watch?v=wlkdKjw2VoY>

<https://www.youtube.com/watch?v=vwV7ive2LgY>

<https://3dprint.com/14757/3d-printing-puppet-parts/>